Injuries and Mass Trauma Events

Information for Public Health Professionals

Eye injuries, sprains and strains, minor wounds, and eardrum damage are all common injuries in mass trauma events.

The most severe injuries in mass trauma events are fractures, burns, lacerations, and crush injuries. However, the most common injuries are eye injuries, sprains, strains, minor wounds, and ear damage.

Why do these injuries occur in mass trauma events?

- Eye injuries and irritation can occur from excess particles (such as soot, dirt, powder, paint chips), fumes or smoke present in the air after a disaster event. More serious eye problems can result from high-velocity metal or glass fragments that enter the eye.
- Sprains and strains are common in these situations and can occur as people escape, fall, are thrown or pushed down by a force, or carry others who are in need of assistance.
- Flying debris and falling on or scraping against sharp objects cause superficial wounds.
- Eardrum damage can occur from a foreign body entering the ear, a blow /jolt to the head, or an extreme and sudden noise (i.e. explosion) all of which are likely in a disaster event.

Who is at risk?

Anyone who is in the surrounding area of a mass trauma event is at risk for these injuries. Rescue workers and volunteers are also at increased risk for these injuries. For more information on emergency response resources for responders visit CDC's National Institute for Occupational Safety and Health website at www.cdc.gov/niosh/emres01.html.

What can health departments do to prepare for a mass trauma event?

- Notify doctors and hospitals in advance about the kinds of injuries to expect following a disaster.
- Review CDC's Mass Trauma Response Tools, including the Rapid Assessment Instrument for Injuries and Other Medical Conditions available at http://www.cdc.gov/masstrauma/response/rapid_assessment.htm.
- Establish partnerships with hospitals in your state to develop protocols for rapid assessment, casualty prediction, hospital capacity information, and patient care.
- Prepare signs. Persons with hearing damage as a result of a recent explosion may not be able to follow verbal directions. They would benefit from explicit, easy to read signs and handouts that are strategically located and distributed in hospitals and clinics.

What can health departments do to prepare for a mass trauma event? continued

- Communicate to health care professionals, media, and general public that medical personnel should examine all cuts and wounds resulting from mass trauma events. Tiny debris particles from explosions, building collapse, or other disaster events can be embedded into wounds and are often highly contaminated. Even minor wounds are at risk for infection. Medical personnel should evaluate all wounds and a tetanus shot should be considered.

What can health departments do after a mass trauma event?

Mass trauma events can create both real and perceived difficulties in accessing medical care. Outpatient and inpatient services at the hospitals closest to the event will likely be the ones most affected during the first 16 hours after an event. In the days following a mass trauma event, all health care facilities are often underutilized. Health Departments can:

- Contact area and regional hospitals to assess their capacity to care for new patients. If the capacity of individual hospitals cannot be confirmed, recommend that less severely injured patients go to hospitals outside the immediate area of the event. If individual hospital capacity can be confirmed, publicize more specific information about where people should go for medical care.

- Work with news media to release information that encourages all injured persons to seek medical treatment because these injuries can have lasting effects and can become infected if not treated properly.

- Conduct a rapid assessment of injuries using CDC's Rapid Assessment Instrument for Injuries and Other Medical Conditions available at http://www.cdc.gov/masstrauma/response/rapid_assessment.htm.

For more information:

Visit the CDC website about mass trauma at www.cdc.gov/masstrauma/.

Visit CDC's Injury Center website at http://www.cdc.gov/ncipc/.